

CLAIMS

1. A filter element fixation apparatus comprising a flexible piece of thermoplastic elastomeric bonding agent mixed with a metal powder for use in a method of making a filter including the steps of bonding two pieces of cloth to the flanges of a flanged tube by locating said flexible piece between each flange and the adjacent surface of the cloth and using induction heating to heat the metal powder and this cause the bonding agent to bond the cloth to the flanges.
2. An apparatus as claimed in claim 1, wherein the flexible piece has guide means to ensure its accurate location between the respective cloth and flange.
3. An apparatus as claimed in claim 1, wherein the flexible piece is annular.
4. An apparatus as claimed in claim 1, wherein the flexible piece has integral guide means to ensure its accurate location between the respective cloth and flange.

5. An apparatus as claimed in claim 1 wherein the flexible piece is annular and has guide means comprising a plurality of radially extending guide legs which extend from the inner periphery of said annular flexible piece.
- 5 6. An apparatus as claimed in claim 1, wherein the flexible piece is annular and has guide means comprising a plurality of radially extending guide legs which extend from the inner periphery of said annular flexible piece, and wherein provided in oppositely disposed pairs.
- 10 7. An apparatus as claimed in claim 1, wherein the flexible piece has guide means which comprises thermoplastic bonding agent mixed with a metal powder.
8. An apparatus as claimed in claim 1, wherein the flexible piece comprises
15 flexible guide means.
9. An apparatus as claimed in claim 1 wherein the metal powder in the bonding agent is a fine iron of 5 to 30 μ m diameter.

10. An apparatus as claimed in claim 1 wherein the metallic powder is distributed in the bonding agent at a ratio of about 1:1 by weight ratio of metal to bonding agent.
- 5 11. An apparatus as claimed in claim 1, wherein the size distribution of the metallic powder in the bonding agent is not greater than 100 mesh (minus 10 to 12%).
12. An apparatus as claimed in claim 1, further comprising a flanged tube, the
10 flanges of the tube being flexible.
13. A method of making a filter, including the steps of bonding two pieces of cloth to the flanges of a flanged tube by locating an annular piece comprising a thermoplastic bonding agent mixed with a metal powder
15 between each flange and the adjacent surface of the cloth and using induction heating to heat the metal powder and thus cause the bonding agent to bond the cloth to the flanges, wherein the annular piece has guide means to ensure its accurate location between the respective cloth and flange.

14. A method according to claim 13, wherein the bonding agent is flexible and is placed between the respective flange and adjacent cloth by flexing it over the flange.
- 5 15. A method according to claim 13, wherein said flanges are flexible and the or each flange is flexed to locate said bonding agent.